AMENDMENTS TO THE CLAIMS

1-41. (Cancelled)

42. (New) An isolated 35C1 antibody, wherein said 35C1 antibody specifically recognizes human and murine aurora-A protein kinase and is secreted by the hybridoma deposited at the Collection Nationale de Cultures de Microorganismes (CNCM) of the Institut Pasteur under the number I-3050.

43. (New) The 35C1 antibody of claim 42, wherein said antibody can be fixed on membranes containing human or murine aurora-A protein kinase, allows detection and purification of human and murine aurora-A protein kinase by immunoprecipitation, allows staining of biological tissues where the human or murine aurora-A protein is secreted, and does not inhibit the enzymatic activity of human and murine aurora-A protein kinase; and wherein said 35C1 antibody is obtained by the following steps:

a) five injections spread over fifteen days to mice of recombinant aurora-A protein kinase produced by *E. coli* bacteria transformed with a bacterial expression vector, with human cDNA coding for aurora-A protein kinase having been inserted in the genome of said bacterial expression vector, sacrificing said mice, and fusing spleen cells of said mice with hamster cells immortalized in culture in order to obtain hybridomas;

b) screening of said hybridomas producing an antibody capable of immunoprecipitating said recombinant aurora-A protein kinase, and recovery of said positive hybridomas after this first screening;

c) screening of said hybridomas recovered in step b), producing an antibody capable of immunoprecipitating endogenous aurora-A protein kinase from an extract of human HeLa cells in culture, and recovery of said positive hybridomas after this second screening;

d) screening of said hybridomas recovered in step c), producing an antibody capable of recognizing in indirect immunofluorescence centrosomes and poles of the mitotic spindle of human cells in culture, and recovery of said positive hybridomas after this third screening;

e) screening of said hybridomas recovered in step d), producing an antibody capable of immunoprecipitating said endogenous aurora-A protein kinase of mice from an extract of murine cells in culture, and recovery of said positive hybridomas after this fourth screening;

f) screening of said hybridomas recovered in step e), producing an antibody capable of recognizing in indirect immunofluorescence centrosomes and poles of the mitotic spindle of murine cells in culture; and

g) recovery and purification by cloning of a positive hybridoma after screening step f), and production of said 35C1 antibody.

44. (New) A cancer diagnostic or prognostic kit comprising said 35C1 antibody of claim 42.

45. (New) The kit of claim 44, further comprising an antibody to a marker of cell

proliferation.

46. (New) The kit of claim 45, wherein said marker of cell proliferation is proliferative cell nuclear antigen (PCNA) protein.

47. (New) A pharmaceutical composition comprising said 35C1 antibody of claim 42, in combination with a pharmaceutically acceptable vehicle.

48. (New) An *in vitro* diagnostic or prognostic method for cancers, in humans or animals, characterized in that it comprises:

– placing the 35C1 antibody of claim 42 in the presence of a biological sample taken from an individual,

–detection of aurora-A protein kinase that may be present in the biological sample using marked reagents recognizing either said 35C1 antibody linked to said aurora-A protein kinase, or the aurora-A protein kinase linked to said 35C1 antibody which may be present in the biological sample.

49. (New) The method of claim 48, characterized in that said 35C1 antibody is fixed on a solid support and the detection is made after rinsing of the solid support.

50. (New) The method of claim 48 or 49, further comprising the quantitation of the aurora-A protein kinase that may be present in said biological sample.

51. (New) The method of claim 48 or 49, characterized in that said cancers are solid tumors selected from the group consisting of breast cancers, stomach cancers, and colorectal cancers.

52. (New) A kit for the implementation of the diagnostic method of claim 48, characterized in that it comprises the 35C1 antibody of claim 42.

53. (New) The kit of claim 52, characterized in that it further comprises a cell proliferation marker.

54. (New) The kit of claim 53, wherein said cell proliferation marker is a marker of the PCNA protein.

55. (New) The kit of claim 54, characterized in that said marker is an anti-PCNA antibody.